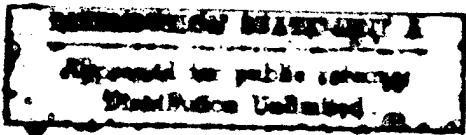




# ***JPRS Report***



# **Epidemiology**

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# Epidemiology

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## NIGERIA

### Meningitis Outbreak Kills Hundreds in North

54000071 Ikeja NEWSWATCH in English  
27 Mar 89 pp 23-24

[Article by Abdulrazaq Magaji: "Death Fiesta"]

[Text] Salihu Isa woke up hale and hearty 6 March, in his village, Dundaye, in the outskirt of Sokoto. He then made for the farm. He returned home around midday, an unusual case in this largely peasant settlement, to complain of severe headache, high fever, muscular pains and general weakness. Soon after, he started to vomit. When his condition worsened later in the day, the local native doctor was called to attend to the dying youth. He was later taken to the Usman Danfodio University Teaching Hospital in Sokoto, a distance of about 20 kilometres.

The health officials at the infectious disease unit of the hospital did not give Isa any hope of surviving. There had been too much delay and considerable damage had been done to his spine. With barely nothing to work with, health officials who applied a combination of antibiotics and Valium to save Isa, were astounded by his response to treatment. Forty-eight hours later, he was out of hospital, free from the jaws of death.

Abdullahi Sabo was less fortunate. He died less than 30 minutes on arrival at the health centre, Lapai, Niger State. Cause of death: cerebrospinal meningitis. CSM. Majority of the victims infected by the dreaded disease are not always lucky. In most cases, they die within 48 hours after the initial outbreak of the symptoms.

The annual outbreak of meningitis has become a permanent phenomenon. Over the years, it has occurred annually in the meningitis belt of Africa, a zone that stretches across the middle of the continent, 600 kilometres north of the equator covering countries like Nigeria, Sudan, Niger, Burkina Faso, Senegal, Chad, Togo and Ethiopia. These countries share uniform climatic conditions characterised by long dry season with relatively low humidity between the months of December and April. For more than a century, the disease has not failed to ravage these "high-risk zones" and leave sad tales of deafness, blindness, paralysis and, in most cases, death in its trail.

The outbreak this year came surprisingly amidst the cold harmattan and dust still rampant in most states in the north. At the last count, press reports mentioned more than 90 deaths in Sokoto State alone. Kwara has recorded more than 100 casualties in Borgu and Edu local government areas. Anambra, described as one of the relatively "less-risky zones," has recorded more than 500 deaths in Awgu local government area alone.

The case of Niger State, where more than 2,000 people were reported killed since the first outbreak in February, created the current hysteria over the lethargic approach

at checking the epidemic. Last week, authorities in Niger State appeared confused over the extent of the damage done to human lives in the state. But Musa Inuwa, the state commissioner for health, told NEWSWATCH that "not more than 120 people have died so far." Agaie and Lapai local government areas, he said, recorded the highest casualties with a combined total of about 100. But investigations in the areas revealed some contradictions.

Moses Tsado, senior nursing superintendent and officer in charge of Lapai health centre, said that he treated only nine cases without any death. A senior official of the centre, however, pointed out that the 2,000 casualty figure reported by some media houses may be realistic "if one takes into consideration victims who died here (Lapai) alone." At least two students of the Muhammadu Kobo Secondary School in Lapai died before help could reach them.

Sokoto and Kwara states are in similar hopeless situation. As in other states, the traditional "fire-brigade approach" is being adopted to check its spread. Between January and now, the Sokoto State government has spend more than N7 million to purchase drugs, especially vaccines, for people in the affected areas. The state will need 1 million doses of vaccines to make it "relatively safe" against the disease. Muhammadu Bello Tunau, the state commissioner for health, said the state currently has 300,000 vaccine does in stock. This according to him, was enough to give the state the 80 percent immunisation coverage prescribed by the World Health Organisation, WHO. Last year, the state achieved achieved 65 percent coverage, 15 percent less than the WHO specification.

Niger State has spent more than N1 million on vaccines alone. According to Inuwa, the purchase will effectively complement whatever assistance the federal government rendered. So far, Niger and other states within the "high-risk zones" are yet to receive any form of assistance from the federal government.

Cash-strapped Kwara State also made available more than N300,000 for the acquisition of vaccines following the death of more than 90 people in Edu and Borgu local government areas. While little is being done to contain the outbreak in these areas, more states have been caught napping. More than 40 people have been hospitalised in Nassarawa local government of Plateau State and with a disputed number of deaths. Borno, Gongola and Kano states are no exceptions. In those states, many victims are also in hospital. As elsewhere, the authorities have made save-our-soul pleas to the federal government for assistance. Apart from the lukewarm response from the federal authorities, harsh climatic condition is another reason given for the perennial out-of-stock syndrome. Tunau said that the harsh weather condition in Sokoto State did nothing to encourage storage of vaccines in rural areas. Said the commissioner: "We have to guard against waste because the vaccines will go bad with they

are not properly stored." This, he said, is rectifiable providing smaller quantities to the local government areas. In other areas, vaccines allocated to some health centres were converted to personal use and, in most cases, illegally sold to patent medicine dealers.

According to experts, the causative agent of meningitis is an organism capable of fermenting glucose and maltose grouped into A, B, C and D. Experts are agreed that vaccines appear to be the most effective stop-gap measure for checking the outbreak of the disease. The rising death toll and the apparent helplessness of affected states, clearly show that there is an acute shortage of vaccines. Even with the almost unbroken recurrence of the epidemic, it is surprising that the states were caught unawares, and as in the past, health officials are looking forward to the federal government for rescue. Inuwa said Niger could not effectively check the disease without adequate federal assistance. Last week, Tunau sent an urgent reminder to Olikoye Ransome-Kuti, minister of health for a speedy response to the situation in Sokoto. Tentatively, the state has set aside 4 days in March, May and June as immunization days.

Beyond mass immunization, an effective housing policy for those in poorly ventilated houses and an effective health education campaign on proper ventilation techniques are required. But the campaigns, just like the annual immunization exercises, have failed in recent times because of the increasing wave of armed banditry, a relatively new development in most parts of the north. Meanwhile, experts have called for a more effective programme to tackle a possible outbreak of the disease on a more massive scale which the harsh weather of May and June promises to bring about. As Tunau put it last week: "The eradication of the disease should be made a national affair and I believe a first vital step in that direction is to declare the affected areas meningitis danger zones." Last week, there were no indications that the government was thinking in that direction.

Hundreds of people died in 1986 when the disease broke out on an epidemic scale. As in previous years, the government promised to check its re-occurrence and

intensified immunization exercises in the affected areas. There was a lull in the campaigns when the rains started and deaths which resulted from the disease decreased. Already, people in the "high-risk zones," majority of whom are not immunised against the disease, are expressing fears of heavy casualties.

## MAURITIUS

**Government Appeals for Help To Fight AIDS**  
*54000156 Port Louis L'EXPRESS in French*  
*28 Feb 89 p 12*

[Text] Speaking for the government, Health Minister J. Goburdhun made a pressing appeal yesterday to friendly governments and international organizations to aid Mauritius in implementing a program of action against AIDS.

The appeal was made during a meeting between the minister, technicians, and representatives of diplomatic missions in Mauritius.

Mr Goburdhun thanked the mission of the "World Health Organization" (WHO) that came under the "Global Programme on AIDS" and spent 10 days in Mauritius assisting the government in establishing a medium-term plan to prevent and control AIDS.

"We were lucky to have recognized the urgency of the problem early enough to take the necessary steps to minimize AIDS' impact on Mauritius," said the Health Minister. "We must now strengthen preventive measures, since the [incidence] rate of the disease is still relatively low."

Mr Goburdhun talked about the AIDS informational and educational drive, preventive measures taken to date, and the possibilities for diagnosing the disease. "We now want to establish a more solid program with long-term objectives to reduce the impact of AIDS in the future," the minister added.

## SOUTH KOREA

**Number of AIDS Cases Rises to Forty-two**  
*SK2904235589 Seoul THE KOREA HERALD in English 30 Apr 89 p 3*

[Text] A 42-year-old man, who received a blood transfusion during surgery in a foreign country, has tested positive for AIDS antibodies, the Ministry of Health and Social Affairs announced yesterday.

A ministry spokesman said the man, identified only as Pak, was presumed to have contracted the AIDS virus while being transfused with tainted blood in view of the fact that he received a large amount of blood while working on a construction site in an undisclosed foreign country.

He underwent surgery in the late 1970s, the spokesman said.

The latest AIDS victim brought to 42 the number of Koreans who have been infected with the AIDS virus and contracted the fatal disease. Eight of these have died and the ninth victim left for a foreign country. Currently, 23 men and 10 women are under "surveillance" by health centers.

**Infectious Diseases Invade two Villages**  
*SK2904020489 Seoul THE KOREA TIMES in English 29 Apr 89 p 3*

[Text] Infectious diseases which hit two rural villages last week have been found to be typhoid fever and bacterial dysentery, the Health and Social Affairs Ministry said yesterday.

A child died of bacterial dysentery in Tanyang, chung-chongpuk-to, and 10 others have suffered from fever and diarrhea caused by the disease. In Koje Island, Kyong-sangnam-to, 22 villages were infected with typhoid fever.

All of them must have acquired the communicable diseases by drinking water from the public wells which were found contaminated, an official said.

The ministry cautioned Monday that typhoid fever and bacterial dysentery are likely to sweep the nation this summer, because the country had a very warm winter.

"It is very easy to acquire communicable diseases like typhoid fever through ingestion of fluids after a warm winter," an official said.

The ministry asked local governments and public health centers to follow the preventive guidelines, which call for vaccination and more frequent sanitation check-ups of the drinking water.

Doctors recommend drinking boiled water and washing hands as much as possible to avoid catching infectious diseases prevalent in the summer season.

## NEW CALEDONIA

**Update on Dengue Fever Epidemic**  
*54004314 Noumea LES NOUVELLES CALEDONIENNES, 7,9,10 Mar, 13 Apr*

[Editorial Report] Four articles in the 7, 9, and 10 March and 13 April issues of Noumea LES NOUVELLES CALEDONIENNES provide updated information on the dengue fever epidemic which broke out in New Caledonia in January. Public health officials have been using trucks and helicopters in a spraying campaign to rid the territory of mosquitoes. They are also appealing to the citizenry to clean up and destroy mosquito nests around their homes.

In January and February 70 percent of blood samples tested positive for dengue; by March, the percentage had dropped to 50 percent. One hundred fifty cases were reported daily in February, compared to 70 a day in early March. Noumea alone accounted for 50 to 100 cases each day.

Health officials documented 2,871 hospital cases by early April, 1,990 of which were in Noumea. While 12,000 persons have reportedly caught dengue fever, only two dengue-related deaths have been confirmed. Ten other deaths are still under study. Thanks to the spraying campaign and better weather conditions, the epidemic appears to be diminishing. Health officials hope that it will be curtailed by the end of April.

## VIETNAM

**Malaria Parasite Spreading Rapidly**  
*54004313a Hanoi QUAN DOI NHAN DAN in Vietnamese 16 Feb 89 p 1*

[Article: "Number of Malaria Victims Declined Last Year but Disease Occurring in Many Locations"]

[Text] According to new data announced by the Institute of Malaria, Parasite and Insect Transmitted Diseases (of the Ministry of Public Health), implementing Directive 174/CT 9 June 1988 of the Chairman of the Council of Ministers, the public health sector last year made a great effort to combat malaria. Consequently, the number of people afflicted declined by nearly 40,000 from the 1987 level. The number of patient treatments for this disease during the past year also declined by more than 2 million compared with the previous year.

However, the present spread of malaria is still extremely worrisome. In just the past year, there were outbreaks of the disease in more than 60 villages in the northern provinces. A similar situation occurred in a few villages in the southern provinces. Noteworthy is that in the northern provinces, the disease occurred not only in the highland provinces but also in the lowlands, coastal areas, and areas formerly of little concern, such as the northern border and the border between Vietnam and Laos. Even in Hanoi, the spread of the malaria parasite during the first 9 months of 1988 increased by more than 6 percent over the same period the previous year.

In the southern provinces, malaria victims are still concentrated in the central highland provinces and in areas where many work sites, state farms, state forests, and enterprises are concentrated with large numbers of laborers, with no malaria immunization, a lack of measures for thorough prevention and control, etc., such as Gia Lai-Cong Tum and Dac Lac provinces where the parasite has spread by more than 80 percent over the previous year.

**Bacterial Disease Afflicts Northern Corn Crop**

54004313b Hanoi QUAN DOI NHAN DAN in  
Vietnamese 7 Mar 89 p 1

[Article by Tien Bo: "Corn Bacterial Disease Appears in North"]

[Text] Recently in the corn fields of a number of local areas such as Dan Phuong (Hanoi) and Thuong Tin (Ha Son Binh) and in a number of corn fields along the Red

River in Ha Nam Ninh and Thai Binh, a disease has appeared that causes the corn plant to wither. The disease usually appears after the corn buds. One or all the corn prop roots about the ground will become brown or dark brown, soft, sticky, and break. At first the corn plant retains its green color for a few days but the tips gradually wither and the plant dies. Corn Stalk Rot [beenhj thoois thaan ngoo] usually appears in locations with a great deal of rain, wet soil, stalks too close together, and no ventilation. Corn Stalk Rot quickly spreads to adjacent plants and will kill an entire corn field because the bacteria spreads swiftly in soil, water, and the air.

To block the disease from spreading, it is necessary to concentrate on field sanitation, ensuring the planting system, and avoiding the planting of corn in waterlogged areas so disease resistant and crossbred strains and varieties of corn should be used.

## CUBA

### AIDS Testing, Treatment, Statistics Detailed

54000007a Havana BOHEMIA in Spanish No 8  
24 Feb 89 pp 20-25

[Interview with Dr Hector Terry Molinert, deputy minister of public health, by Raul Cordoves; date and place not given; first four paragraphs are editorial comment]

[Text] Geneva has once again been the capital for a great event. At the headquarters of the World Health Organization (WHO) scientists from throughout the world met to outline their experiments, research, and analyses about different aspects of the Acquired Immune Deficiency Syndrome.

The meeting created expectations about the exchange of opinions which would undoubtedly take place on this complex issue having repercussions on humanity and regarding which there are many points of view, not always in agreement with each other.

Because of the thoroughness of its data and the accuracy of its statistics, the report presented by our Ministry of Public Health had an impact on those attending the meeting. They agreed that due to its scientific and technical quality the document was among the best of those discussed. They recognized the value of the Cuban contribution to the meeting in Switzerland.

At the request of BOHEMIA, Dr Hector Terry Molinert, deputy minister in the Ministry of Public Health who represented us during the long hours of intense discussions, offered the most up-to-date details on serological research, on those suffering from the disease, on the number who have died, and on the studies which the AIDS control program in Cuba is carrying out with the sexual partners of those affected with the illness.

[BOHEMIA] AIDS is considered a catastrophic event by the principal scientific authorities. Why is this illness not a serious health problem in Cuba?

[Molinert] It is important to note that although the WHO World Program on AIDS was set up in February 1987, our own program was established long before the first patient appeared here.

We now have 45 laboratories for the detection of HIV antibodies, one of them at the national level and the other 44 in cities and provinces.

In 1988 1,941,952 tests were carried out to identify HIV-1 antibodies. Including the tests made during 1986 and 1987, this amounts to 3,426,321 examinations. Furthermore, 4,737 samples were analyzed to identify HIV-2.

Those studies made it possible to state that up to now 268 Cubans have tested positive: 267 with HIV-1 and one with HIV-2.

The index of positive identification in 1988 was 0.005 percent, less than the percentages in 1987 and 1986, which were 0.016 and 0.008 percent, respectively. Broken down by sex, seropositive results were found among 195 males and 73 females. Among the males there were 65 homosexuals and bisexuals, amounting to 33.3 percent of that group, where the ratio of males to females was 2.7 to 1.

The average age of those who tested positive was 26. It was 25 for the women and 27 for the men. In 91.4 percent of the cases it has been possible to identify risk factors or conduct which allow us to identify the probable source of infection.

Without a doubt 90 percent of those affected owe their illness to direct or indirect relations with foreigners. The rest, that is, three persons who received blood transfusions, had acquired the infection prior to May 1986, when we began tests on blood donations.

As our readers can appreciate, AIDS is not a serious health problem in Cuba because of the timely measures taken. However, it must be quite clear that this is due not only to these measures but rather to the sexual behavior of every Cuban.

[BOHEMIA] The figures which you have provided lead us to think that almost half of the sexually active population has been checked. What is the total number of persons who have been sick and who have died?

[Molinert] Of the 268 individuals found to have positive signs of the virus 51 are listed as ill with the disease, of whom 10 (19.6 percent) are women and 41 (80.3 percent) are men. Here the ratio is 4.1 to 1. Their average age is 32.

In the male group there are 18 homosexuals and bisexuals. In general, the bodies of those who are ill with the disease have no defenses to deal with what we call opportunistic infections which occur but do not lead to illness among persons not suffering from conditions involving cellular immunity.

Whenever any of these complications appear, the sick persons are moved from the sanitarium, which was established 2 and 1/2 years ago, to the Pedro Kouri Institute of Tropical Medicine, which has highly qualified personnel and resources to treat them.

Up to now 12 persons have died, all males. The average period of survival among them is 16 months, but the range has been between 9 and 30 months. Pneumonia caused by Carini lung cysts was the most frequent opportunistic illness in those cases.



[BOHEMIA] It is known that in addition to treating the patients, periodic tests are made of their sexual partners. How are these studies carried out?

[Molinert] Those studies are handled by specialized personnel trained in handling interviews with individuals who suffer from sexually transmitted disease, which is not new in this country, since it is now more than 25 years since national control programs were set up.

However, nurses with years of professional experience handle the interviews and serological studies to identify the HIV virus among the sexual partners of those who are ill. These nurses take a basic, post graduate course of 1 year to specialize in the control of sexually transmitted diseases.

#### Seropositives and Deaths in Cuba 1985-1988

Year	Seropositives	Deaths
1985	0	0
1986	99	2
1987	75	4
1988	94	6
TOTAL	268	12

One of these nurses is assigned to each of the more than 450 polyclinics throughout the country and, at the municipal level, in the 169 territories in that category in Cuba. Their work on the ground is supervised by an epidemiologist.

[BOHEMIA] What is done when a case is confirmed?

[Molinert] An immediate report is made to the National Directorate of Epidemiology in the Ministry of Public Health, which is charged with maintaining a national registry of persons who have tested positive with the HIV virus. This information is communicated urgently to the provincial department of epidemiology, depending on the residence of the affected person, so that a brief report will reach even the municipal government involved.

It is the municipal departments of epidemiology which find and interview those persons. Given the importance of the disease, this is done with the greatest discretion, so that the identity of the infected person is known only by those who need to know.

Once the sexual contacts of the infected person are known, the latter are found and kept under epidemiological observation through periodical checkups, depending on their particular risk.

[BOHEMIA] Could you tell us what these checkups consist of?

[Molinert] First, each one of those contacts is given a blood test to determine whether the HIV virus is present. At the same time they are given educational advice on their future sexual conduct.

Then, while waiting for the result or the results of the examinations, in general all of their contacts are followed up for 1 year following the date of their last sexual contact with the positive case. Blood tests are given to them on a quarterly basis. However, in the case of spouses, the checkups will continue for an indefinite time.

[BOHEMIA] What are the principal measures recommended during the epidemiological followup?

[Molinert] Above all, abstaining from sexual relations with new partners and not giving blood or sperm. Women should avoid pregnancy at all cost. If the couple in question has had a stable relationship for a long time, the use of a condom is recommended during intercourse.

[BOHEMIA] If one of those contacts turns out positive in the initial study or afterwards, what happens?

[Molinert] The process of epidemiological research begins again with all of the sexual partners of that contact. During this process we maintain the anonymity of the positive contact who provided the information but we inform the spouses.

Provided that the person so desires, he or she is permitted to participate in choosing the locality and in arranging the appointment with the health units where the blood sample will be taken.

Once a contact is found and studied, the report is registered with the provincial health office and at the National Directorate of Epidemiology, where a record is made of the date and the results of the examination.

Reviews of these studies are performed periodically. At times there are contacts which are difficult to find, due to a lack of knowledge of their exact address. There is also a small number of people who are impossible to find due to the scarcity of data provided. At times there is no adequate, physical description, no surname, etc. However, an additional register is maintained to attempt to identify the contact by other means.

Principal Groups Studied - Cuba

Groups	1986		1987		1988		Total	
	No.	+	No.	+	No.	+	No.	+
Donors	304,856	12	491,884	6	584,954	2	1,381,694	20
In Process	—	—	79,063	3	203,218	6	282,281	9
New Cases	—	—	99,348	2	554,522	12	653,870	14
STD*	—	—	9,552	0	95,986	9	105,538	9
Contacts	552	17	350	34	415	21	1,317	72
International Travelers	241,983	54	93,926	19	89,019	22	424,928	95
Others	56,370	16	106,485	11	413,838	22	576,693	49
TOTAL	603,761	99	880,608	75	1,941,952	94	3,426,321	268

\*Sexually Transmitted Diseases

[BOHEMIA] How many doctors and nurses are participating in this work and what is the result 3 years after the national program was established?

[Molinert] In all there are about 200 epidemiologists and 450 nurses. During the 3 years of the program 1,317 sexual contacts of those found to have positive HIV examination results were interviewed. Of them 1,052 contacts were examined. That is, 80 percent.

[BOHEMIA] How many remain to be located?

[Molinert] There are still 176 persons to be found, and another 89 are in the process of being found and studied.

[BOHEMIA] How are these contacts distributed according to their sexual conduct?

[Molinert] About 57 percent of them are heterosexuals, while the remaining 43 percent are masculine homosexuals or bisexuals. Among the heterosexuals there are 594 women and 161 men.

The average number of sexual partners of the HIV seropositive men who are homosexuals and bisexuals is 9, whereas the number for heterosexuals of both sexes is 3.7. This shows a greater level of promiscuity among the first group.

Thus far 99 individuals (37 percent of all positive cases in the country) have been diagnosed in terms of their contacts. Among them 37 had relations with homosexual or bisexual men (6 women and 31 men); 62 acquired the infection through heterosexual relations (9 women gave the disease to men, and 53 men gave the disease to women.).

About 5.6 percent of the men investigated who had sexual relations with infected women caught the disease, while this happened to 12.1 percent of the women who had sexual relations with heterosexual men.

In the case of women who had sexual contact with bisexual men 3.4 percent of them came down with the illness. The higher percentage of infection among women who had sexual relations with heterosexual men (a relative risk of 4.7) could be explained by the high frequency of anal intercourse (53 percent) reported in the study, a practice not mentioned by the women who had relations with bisexual men.

The frequency of these sexual acts was associated with the possibility of transmission of the infection, as well as traumas which occurred during the act, even when 10 percent of those infected reported a single act of intercourse with the sexual partner who was the probable source of infection.

Finally, we would like to point out that not all of the positive cases are detected during the first serological examination. Although the number diagnosed after the second examination is small, a series of studies was justified during the period considered necessary in the case of the contacts of positive cases.

### Summary of Results

- The index of positive identification of the HIV virus has systematically declined in each year of the study, compared to the preceding year.
- Among specific groups of people studied, HIV positive indices have shown a tendency to decline.
- About 90 percent of the HIV positive persons owe their infection to direct or indirect relations with foreigners.
- The highest HIV positive rates were found in the province of Sancti Spiritus and in the City of Havana, with 0.93 out of 10,000 tests in the former case and 0.43 out of 10,000 tests in the latter case. The Special Municipality on the Isla de la Juventud [Island of Youth, formerly Isla de Pinos—Island of Pines] has the same rate as Havana, although the seropositive cases there arrived already infected from other parts of the world.

- By sex the number of HIV positive cases is greater among males than among females in a proportion of 2.7 to 1, while the proportion among those already ill is 4.1 among males to 1 among females.
- Homosexuals and bisexuals account for one-third of the total number of HIV positive males detected, which is evidence of the greater risk of infection among this group.
- HIV positive persons and those ill with AIDS belong to the younger groups of the population. Their ages range from 26 to 32.
- The average period of survival of those who have died of AIDS in Cuba has been 16 months, with a range between 9 and 30 months.
- The most frequent, other infections which are the cause of illness and death are: pneumonia or Carini lung cysts and illnesses resulting from cytomegalovirus and cryptosporidia.
- We have been able to examine 80 percent of the sexual partners of HIV seropositive persons. There are still 176 persons remaining to be found and 89 others in the course of being found and examined.
- In terms of sexual conduct 57 percent of the contacts are heterosexual, while 43 percent are male homosexuals or bisexuals.
- The average number of sexual partners of HIV positive men who are homosexual and bisexual is 9, while the average number of partners of heterosexual people of both sexes is 3.7.
- About 3.4 percent of the women who had sexual relations with bisexual men acquired the infection.
- A relationship was found between HIV infection and the number of sexual contacts and traumas during intercourse.
- Heterosexual transmission of the HIV virus has been proved in our study in both directions: from man to woman and from woman to man, although the former is much more frequent.

**Final Note!**

The Cuban Ministry of Public Health has reported that the number of tests made of the sexually active population amounts to 3,625,189. Up to 1 February there have been 275 HIV positive cases reported, of whom 202 are males and 73 are females. Of the 51 persons ill with AIDS 13 have died.

## BAHRAIN

### Increase in Skin Infections in Gulf Reported

54004528 Manama GULF DAILY NEWS in English  
27 Mar 89 p 5

[Text] Skin infection is on the increase in the Gulf, according to a top surgeon in Bahrain.

Dr Mahavir Mehta has recently taken up a position as a consultant dermatologist with the International Hospital.

He believes that skin infections or infestations such as scabies or the spread of lice, can be effectively treated and prevented.

"Sadly, despite our best efforts the incidence is increasing," said Dr Mehta.

Dr Mehta explained that the Gulf's hot and humid climate allows infections and bacteria to thrive. Many patients do not reveal their skin problems in time to qualified doctors, so that by the time they do, the infection has spread.

The earlier the diagnosis, the better the prognosis, he said. He also advised parents to keep a close watch over their children to see if they have developed any skin infections.

The doctor also highlighted the problems of sexually transmitted diseases. Many people are afraid to go to established doctors and instead turn to inexperienced "quacks," he said.

## JORDAN

### Number of AIDS Cases Rises to 25

54004529 Amman JORDAN TIMES in English  
3 Apr 89 p 3

[Text] The official number of AIDS cases in Jordan now stands at 25 up from 22 in February 1989 with the death toll this year put at 3 up from 2 in 1988, according to a Ministry of Health official quoted by the local press.

Most of the cases of AIDS (acquired immune deficiency syndrome) were caused by blood transfusion that took place abroad, the official said.

Director of Health Ministry Communicable [as published] Disease Department Hani Shammut was quoted as saying that the ministry was expecting AIDS cases in Jordan this year to reach 35.

Dr. Shammut said that two of the present AIDS carriers are likely to die during 1989, but he added that the problem is now under control since the ministry imports no blood and is going ahead with an anti-AIDS campaign through a national committee formed last year. The committee groups representatives of Ministries of Health, Education, Interior, Higher Education and Awqaf and Islamic Affairs as well as the Public Security Department, the Jordanian Bar Association, the General Union of Voluntary Societies and the General Federation of Jordanian Women.

Shammut revealed that meningitis cases are on the increase in the country and the Ministry of Health was carrying out a mass vaccination programme to immunise school students and conscripts against the killer disease.

Shammut revealed that between 7 and 8 meningitis cases are reported in Jordan every month.

Shammut also said that the Ministry of Health was going ahead with a campaign to provide immunisation against tetanus. The campaign is largely directed against young women and mothers, Shammut said, and noted that the diseases is deadly in 90 per cent of the cases.

## SUDAN

### National Incidence of Meningitis Cases Reported

EA2503223089 Omdurman Domestic Service in Arabic  
1800 GMT 25 Mar 89

[Text] The director of the department of epidemics and chronic diseases at the Ministry of Health, Mr al-Sadiq Mahjub, has announced that the total number of cases of meningitis reported country-wide up to yesterday, Friday, was 425, of which 41 had died. The breakdown is as follows:

National capital: 71 cases, 5 deaths.  
Central Region: 67 cases, 10 deaths.  
Northern Region: one case.  
Eastern Region: 23 cases, 1 death.  
Kordofan Region: 146 cases, 36 deaths.  
Darfur Region: 29 cases, 3 deaths.  
Bahr al-Ghazal Region: 57 cases, 9 deaths.

No cases have been reported so far in Equatoria and Upper Nile regions. Mahjub said the increase in the number of deaths is attributed to poor medical services and the delay in reporting cases. He said that there are enough drugs to treat meningitis and that the vaccination is valid for 3 years.

## UNITED ARAB EMIRATES

### Health Department To Issue 'AIDS-Free' Certificates

54004530 Dubayy GULF NEWS in English  
25 Mar 89 p 3

[Text] The AIDS-free certificate can now be obtained from the Dubayy Health and Fitness Department.

The department will issue the certificate which will certify that the holder had been tested for AIDS virus and found free from it.

The certificate known as the H.I.V. test certificate will cost Dh.50. All details about the holder's blood test, validity of the certificate and date on which the test was conducted will be featured with the holders photograph.

The certificates have been introduced at the behest of the Preventive Medicines Department of the Ministry of Health.

**Prevention of Spread of AIDS in the Ukrainian SSR Discussed**

18400295 Kiev VRACHEBNOYE DELO in Russian  
No 9, Sep 88 pp 1-3

[Article by Yu. P. Spizhenko, deputy minister of health of the UkSSR]

[Excerpt] [Passage omitted] Concerning the identification of HIV seropositive foreign citizens studying in the Ukrainian SSR who could bring the AIDS infection into the territory of the republic, health care agencies and the Kiev Scientific Research Institute of Epidemiology and Infectious Diseases imeni L. V. Gromashevskiy—the head institute for AIDS research—have done an immense amount of organizational work.

Measures have been in place since 1987 for the prevention and treatment of AIDS, a task that has assumed paramount importance among the activities of health care agencies and institutions as well as of medical science. At blood-transfusion centers, certain oblast clinical hospitals, the Kiev and Lvov hematology and blood transfusion scientific research institutes, and the Kiev Scientific Research Institute of Epidemiology and Infectious Diseases, special diagnostic laboratories have been created, centers for confirming AIDS test results have been set up, and the population groups that need to be examined first have been identified. Those groups include the following: foreign citizens studying in the UkSSR; Soviet citizens returning from lengthy foreign assignments (longer than three months); blood, plasma, sperm, and organ donors; high-risk-group individuals—homosexuals, prostitutes, and drug addicts, for example; individuals who have had contact with AIDS patients or with those who are seropositive for HIV; individuals with venereal disease; and, among others, hemophiliacs.

A great deal of work has been done in conjunction with the Ministry of Internal Affairs, the Department of Visas and Registration [OVIR], and other services and agencies in order to examine risk groups.

In all, 663,258 donors and 115,558 other individuals had been tested for HIV in the republic as of March 1, 1988—with 101,909 of them tested at the Kiev Scientific Research Institute of Epidemiology and Infectious Diseases alone. As of April 1, a total of 91 individuals seropositive for HIV had been recorded, 78 of them foreign citizens, 13 of them USSR citizens. In the latter group, most were individuals who had a promiscuous sex life.

The organizational and diagnostic work associated with identifying individuals seropositive for HIV is being conducted under the scientific and procedural guidance of the Kiev Scientific Research Institute of Epidemiology and Infectious Diseases and its enzyme immunoassay center, which have developed a training program

and are training medical personnel in the diagnostics, clinical picture, and prevention of AIDS (more than 100 specialists); a number of procedural materials have also been prepared.

Thus, fundamental to the battle against AIDS are preventive measures that should be conducted differentially for the various risk groups and the population as a whole, including mass screening for HIV, especially of donors, pregnant women, and individuals suspected of having AIDS. We need a single-minded health education campaign that promotes a healthy lifestyle, especially among our youth. Medical personnel involved in providing timely identification not only of individuals with AIDS, but also of those with infectious HIV should be specially trained. Only a close coordination among Party and Soviet organizations, health care organs and institutions, scientists, and the entire public will put a stop to the continued spread of the "plague of the twentieth century."

**Doctor of Immunology Complains of Slow, Inadequate Response to AIDS**

18300349 Moscow YUNOST in Russian  
No 12 Dec 88 pp 92-94

[Article by Professor A. Shevelev, doctor of medical sciences, board member of the All-Union Scientific Society of Immunologists: "Dangerous Edge"]

[Excerpt] "If they only had asked us..."

How are we in our country viewing the experience gained by other states in the battle against AIDS?

On February 1987 a correspondent from LITERATURNAYA GAZETA posed that question to former USSR Deputy Ministry of Health and Chief USSR State Sanitation Physician G. N. Khlyabich:

"Why is it that problems concerned with the spread, treatment, and prevention of AIDS not discussed openly in our country for such a long time?"

The answer was the following:

"When information about AIDS appeared in 1981 (it came from the USA) the medical profession was naturally alarmed, although there were no data on the clinical aspects and epidemiology of this disease. We were ready to react efficiently, **if only we had been asked** (underscore mine, A. Sh.).

But who was supposed to ask the Ministry of Health about this?

In the summer of 1985 there was an International Student and Youth Festival in Moscow. By that time the Ministry of Health had already known that the AIDS pandemic had engulfed more than 40 countries. It was also known that coming to Moscow would be tens of

thousands of representatives from countries in the pandemic zones. Nevertheless, not only the public, but even the medical personnel of Moscow were not informed in time about the characteristics of AIDS and measures required for its prevention. A few reports in the newspapers that got past the censors of the Ministry were rendered in a shortened and doctored form. The word "homosexuality" was considered unprintable.

And the first order issued by the USSR Ministry of Health about the disease's control, in order "not to frighten" physicians did not provide them with the most important features of the illness. In particular, no information was given about the exceptionally long incubation period and the practically 100 percent mortality rate.

However, what was most incomprehensible was the Ministry's attitude towards publicizing the disease: It was in fact in the summer of 1985 that the Minister issued a circular asking for its agreement to publish appropriate articles. The Ministry prohibited the printing of even survey and popular science articles about AIDS.

What is the present situation?

Before answering that question, it is important to clarify how we are handling the possible development of an epidemic in the USSR and whether or not it is possible to conclude that the first cases of morbidity is the beginning of such an epidemic.

I shall cite two quotations in that connection:

1. "The conditions for the massive spread of the disease in our country do not exist: Homosexuality, as a serious sexual perversion is punishable by law (Article 121 of the RSFSR Criminal Code). Constant efforts are being made to explain the harm caused by narcotics. We have plans to identify possible cases of AIDS (in the face of exceptionally broad-scale contacts between the country's population and foreign citizens). Intensive scientific efforts are now under way to produce diagnostic preparations." (P. N. Burgasov, Academician of the Academy of Medical Sciences, former USSR Chief Sanitation Physician.—LITERATURNAYA GAZETA, May 7, 1986).

2. "If we want to put a stop to the spread of AIDS we must now proceed as if we already have an epidemic" (V. I. Pokrovskiy, President of the USSR Academy of Medical Sciences, Director of the USSR Ministry of Health Central Institute of Epidemiology.—IZVESTIYA, June 16, 1987).

We see that two prominent representatives of medical sciences in our country approach this problem from essentially different aspects. Which of them is right?

In order to understand this situation, one should examine the kind of theoretical prerequisites that underlie the basic views of the two authors. The crux of the matter is the following: Do we have in our country the social roots for the development of an epidemic? This question was answered more precisely by Academician of the Academy of Medical Sciences V. I. Pokrovskiy.

"We do not know how many prostitutes, drug addicts, and homosexuals we have in our country. All of those activities are criminally punishable in our country. And until recently we have had a most absurd situation worthy of the pen of Saltykov-Shchedrin, but perhaps of Dostoevsky as well. That which had been declared illegal was simultaneously declared to be non-existent. In any case, for the broad public mind and for the press. We do not know the true number of women who enter into intimate relations with men from the 'risk groups.' And, finally, what is most important of all, we do not know the number of persons living within the borders of the USSR who are infected with the AIDS virus." (IZVESTIYA, June 16, 1987).

The question about the social roots for any particular epidemic should not be misconstrued as some temporary situation.

Of course, one should keep in mind the fact that there are a number of factors in our country that limit the spread of the epidemic in comparison to the USA. In contrast to most capitalist states the USSR does not import donor blood which significantly reduces the possible contamination of our blood bank. We do not have organized communities of homosexuals with their own clubs that have been quite conducive to the massive spread of AIDS in the basic breeding grounds of AIDS such as New York, San Francisco, and Los Angeles. The distribution of pornographic postcards and films is forbidden in the Soviet Union. All of this naturally has placed some restrictions on the scope of the "sexual revolution" in the USSR in comparison to the USA. And even though an increasingly larger number of drug addicts is being identified in our country, that number is hundreds of times less than in the USA.

At the same time there are a number of factors in our country that could adversely affect the development of an epidemic. One of those factors is the criminal liability of homosexuality which impedes the identification and treatment of infected persons and virus carriers in this category. Not all blood donors are as yet being tested for AIDS in our country which hinders the timely identification of virus carriers among those persons as well. We are experiencing an acute shortage of disposable needles and syringes. Another unfavorable factor is also the fact that the question of sex education in the schools has yet to be resolved. Drug addiction is becoming an increasingly alarming situation. We know we have homosexuals in our country but we do not know their numbers. We have a catastrophic shortage of condoms.

For decades we have remained silent about prostitution in our country. Now we are troubled by its growth, but we don't know how many prostitutes we have. We are continuing the academic dispute as to whether prostitution is an act that is criminally punishable or whether this is problem that belongs only to the area of morality.

It is time to understand that in the era of AIDS such discussions are not only senseless, but harmful as well. Particularly in our country where the principal route of AIDS dissemination is without question infection from foreigners. In that light, any prostitute, both the "high class" types who visit Intourist hotels as well as women who give themselves to foreign students in the dormitories in exchange for clothes, becomes socially hazardous. After all, a significant number of them can not only infect other men after having had intimate relations with foreign arrivals, but what is even more dangerous is that they can become blood donors and consequently infect an unpredictable number of men, women, and children. Even if they are tested for AIDS because the conventional methods of detection cannot identify virus carriers in the first months following infection, and yet their blood is already contaminated.

The ukase of the USSR Supreme Soviet Presidium "On Measures for the Prevention of AIDS Virus Infection" was promulgated on August 25, 1987.

Paragraph 2 of the ukase reads:

"The willful endangerment of another person to AIDS infection is punishable by imprisonment for a term of up to five years. An AIDS virus infection of a person by a person who knows he has this disease is subject to imprisonment for a term of up to eight years."

But in order make their own operations effective the police need to have supplemental statutes formulated and published that would clarify the notion "prostitution" and define punitive measures for prostitutes engaged in intimate relations with foreigners.

The Ministry of Health does not believe it is necessary to report the number of persons or which categories of the population that have been tested as virus carriers in our country. Therefore we do not know which citizens in the USSR should be classified in the high risk groups.

It is absolutely essential that we have annual All-Union conferences on AIDS that would include the participation of all interested persons and organizations, including representatives of the mass media.

It should be recognized that over the last year much has been done by the new leadership of the USSR Ministry of Health in to comparison to the activity of the previous leadership. Three hundred eighty AIDS diagnostic labs have been organized. Ninety-seven percent of the blood donors have been examined. Scientific research on this

problem has been intensified. For example, a fundamentally new AIDS diagnostic preparation which won an international prize was developed at the USSR Ministry of Health Institute of Immunology under the supervision of Academician R. V. Petrov.

However, the situation remains most alarming. We have not yet learned the necessary lesson from the mistakes of the past. What is most dangerous is that in the process of formulating an AIDS control program, the Ministry did not deem it necessary to consult with the broad public, and particularly with the medical profession. The program has not been promulgated and physicians have not been made aware of it.

The statistics provided by the USSR to the WHO over the last one and one-half to two years are a cause of bewilderment and alarm. Judge for yourself. At the end of 1986 we recorded one case of AIDS, but three months later, at the end of March, we recorded 32 cases which was also reported at the 3rd International Congress on AIDS in June 1987. That is a bizarre statistic. It means that within a period of three months the number of AIDS patients in our country increased by 32 times whereas the period of time during which the number of AIDS cases doubled in the USA and Central Africa at the time of epidemic's most vigorous growth, was five to six months. Again, three months later, we reported in the WHO WEEKLY EPIDEMIOLOGY RECORD that the number of AIDS cases in our country had grown to 58, but at the beginning of August in the same year that figure suddenly dropped to four cases and remained at that level until the 4th International Congress on AIDS in June 1988.

How is one to explain this statistical chaos?

The explanation was quite simple: We do not know how to diagnose AIDS. In July 1987 WHO declared our data to be incorrect since we reported the number of infected persons instead of the number of persons afflicted with the disease.

What is the actual state of affairs?

Of the four AIDS cases recorded in our country three are foreign citizens and one is a citizen of the USSR. The case history of the latter case is cause for considerable thought. In March 1987 a physician at the proctology department of one of the Moscow clinics was attending a lecture on AIDS at the Central Institute of Epidemiology. After having heard the lecture she suspected that one of her patients was sick with AIDS. When she brought him to the infectious diseases clinic for an examination that diagnosis was confirmed. Moreover, it turned out that the patient was known to the clinic. He had been there four years ago, but was discharged after having been given a different diagnosis. The patient worked in Tanzania over a lengthy period and had homosexual relations there.

An epidemiological investigation established that he had 24 sexual partners in the USSR, five of whom he infected. The persons infected by him in turn infected three women through sexual contact and five persons via blood transfusions. One should keep in mind that not all the infected persons in this chain have been detected because there is no guarantee that all of their sexual contacts have been identified.

This case is instructive. Had not the physician heard the lecture on AIDS, the patient would not have been diagnosed and he would have continued to spread the infection. Such is the knowledge about AIDS among physicians in Moscow. But what is being done in the peripheral areas?

USSR Minister of Health Ye. I. Chazov declared on February 13, 1988 in an interview in MEDITSIN-SKAYA GAZETA: "We have now recorded 32 virus carriers in our country of whom 18 persons had relations with foreigners. And among the 97,000 tested foreigners who arrived in the USSR 221 persons had positive serum reactions."

President of the USSR Academy of Medical Sciences V. I. Pokrovskiy in an OGONEK magazine interview (1988, No 28, pp 12-15) criticized a statement made by an official of the USSR Ministry of Health who said "there is no talk yet about the spread of an epidemic." And just why is there no such talk? Well, yes everyone was pacified by the small statistical number: a total of only 56 virus carriers. But pay attention to this fact: Of those persons 26 persons were identified during the entire year of 1987, but in only four months of this year 30 such persons have been identified! That is to say that the number of infected persons is increasing every day and the rate of growth among infected persons is the same as it is in the Western countries. This means that whereas if we now correspond to the number of infected persons in France in 1981, in five to six years we will reach its present level. That level is several thousand AIDS patients and several hundred thousand infected persons."

It is not impossible that the corresponding figures will turn out to be significantly more striking. By July 1988 we had identified in our country about 300 infected foreigners (almost all of whom have been deported) and 64 infected Soviet citizens. It is hardly probably that we have succeeded in identifying all of their sexual partners. Thus, the increment in the number of infected persons has been growing markedly. Over a five month period (from February to July 1988) that number doubled. In other words, the period during which the number of infected Soviet citizens doubled is equal to the period during which the number of AIDS patients doubled in the USA during the epidemic's peak.

The attitude of the USSR Ministry of Health toward the assignment of our scientists to Western countries to study the clinical aspects of AIDS and to exchange

scientific information in this area, causes some surprise. Suffice to say, that out of the 6,000 scientists who attended the 3rd International Congress on AIDS there were only four representatives from the USSR, and that there were only two representatives from the Soviet Union at the 4th Congress.

Everybody knows about difficulties with hard currency. But there must be appropriate reasonable priorities. Thus, there was some indignation expressed in the press recently that hard currency was made available to only 80 fans from the USSR for the European soccer cup playoffs. But it was deemed possible to send only two persons to the International Congress on AIDS which was held in Sweden.

**The hard truth is that the disputes as to whether or not there will be an AIDS epidemic in our country or not are fruitless and dangerous. The epidemic has already begun. One thing is clear: The number of cases that have been recorded in the USSR is only the tip of the iceberg whose true dimensions we are not yet able to determine.**

In the meantime serenity continues to reign in our country. The medical education situation is still in the embryonic stage. Radio, television, and the cinema are practically inactive in this area. The booklet on AIDS of which 10 million copies were distributed in 1987 leaves much to be desired. Problems pertaining to the sex education of young people are ignored. We are not adhering to the London Declaration of the WHO which proclaimed 1988 as a year for the dissemination of information about AIDS. To date disposable syringes and needles are not being manufactured in sufficient quantities.

The apparatus style of resolving AIDS problems is reflected in the fact that the USSR Ministry of Health does not wish to consider the opinion of scientists, and particularly that of Academician of the USSR Academy of Medical Sciences who argue against the sale of syringes only with a prescription signed by a chief physician. This is being done to control drug addiction, but is turning out to be ineffective. In England, France, Australia, the Netherlands, and a number of other countries in the West, the lesser of two evils has been chosen—there efforts are being made to provide drug addicts with sterile syringes and needles, but we are hindering that procedure and by the same token we are enhancing the spread of the epidemic.

In the meantime, given our lack of disposable syringes, there is considerable urgency in the recommendation of V. I. Pokrovskiy that persons who frequently obtain injections keep their own set of syringes which they should take with them to the polyclinic when they go for their shots.



The problem of safe sex runs up against the immense shortage of condoms and their poor quality. In many cities they are being sold on the black market at inflated prices.

I believe that the thoughts expressed by Academician of the USSR Academy of Medical Sciences V. N. Smirnov are quite correct:

"In my view, because of its significance the diagnosis and treatment of AIDS can no longer be viewed as an individual problem that should be the concern only of the USSR Ministry of Health and the Ministry of Medical and Biological Industry. At the very least it requires the same kind of attention and concise organization that were characteristic of efforts made in the area of nuclear weapons and space... In spite of the fact that the state program for the diagnosis of AIDS and research on drugs for the treatment of AIDS exists in a formal sense, we do not have any realistic coordination of efforts in this area because of the independent manner in which each department operates. It is essential to appoint a coordinator not from the administrative apparatus of the USSR Ministry of Health and the USSR Academy of Medical Sciences. He must be subordinate to non-departmental governmental offices... Any projects dealing with the problem of AIDS should be directly subordinated to the coordinator. Any organization or individual scientist who has realistic suggestions should have direct access to him." (IZVESTIYA, September 3, 1987).

In other words, in our battle against AIDS we need a coordinator who is equal in breadth of personality and authority to that of Kurchatov or Korolev. And empowered with the same kind of rights.

In the summer of 1988 an interdepartmental committee on AIDS was created which included the participation of representatives from a number of ministries, the press, radio, and television. This of course was a good thing. But is essential that the sessions of this committee be held openly and that the mass media be informed of its work.

The draft of the National Program on AIDS must be published and subjected to thorough discussion. The discussion might be based on the State Program which has been now adopted via the apparatus route as a legislative bill. Following such discussion an appropriate law should be adopted at a session of the USSR Supreme Soviet. In that regard use might be made of the experience gained in the USA where more than 500 bills on controlling AIDS have been introduced at legislative meetings in various states. More than 35 bills have been passed. Among those are bills calling for courses on AIDS and safe sex in senior classes at schools, and requirement of an AIDS analysis certificate upon marriage registration.

It is essential to support decisively the initiative taken by the SOVETSKAYA ROSSIYA newspaper to create a special AIDS Foundation. I would think that the organizers of this foundations should include not only SOVETSKAYA ROSSIYA but KOMSOMOLSKAYA PRAVDA and the journal YUNOST inasmuch as the principal victims of AIDS are young people. Such foundations have been organized in many other countries such as the USA, France, and others. In the USA this foundation is directed by the famous actress Elizabeth Taylor. The foundation regularly receives funds obtained from concerts by famous performers, artists, and writers.

Participation in the AIDS Foundation in our country should be solicited from various public organizations, the church, and from all those wishing to participate.

It is time to mobilize the entire society in the battle against this as yet invisible but realistically growing danger! It is time to proceed from words to deeds!

The price of indifference is too high: This concerns the future of our young people and the future of our society.

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#### **Minister Calls for Upgrading AIDS Diagnostic Measures in Lithuanian SSR**

54001012 Vilnius SOVETSKAYA LITVA in Russian  
21 Nov 88 p 3

[Article consists of comments by Aloizas Grishkyavichyus, Lithuanian SSR first deputy minister of health: "AIDS: Our Reality and Our Problems"; first paragraph is boldface SOVETSKAYA LITVA introduction]

[Text] The special commission to examine the first case of AIDS in our republic that was created in the Lithuanian SSR Ministry of Health has concluded its work. ELTA correspondent Vida Petrauskayte asked Aloizas Grishkyavichyus, who is first deputy minister of health of the Lithuanian SSR and who chaired the commission, to comment on the commission's conclusions in greater detail and to discuss the fight against AIDS.

As already stated in the press, antibodies to the human immunodeficiency virus (HIV) were detected in the blood of the 41-year-old man who died at the hospital in Klaypeda. Based on a telegram received from the Moscow Central Scientific Research Institute of Epidemiology confirming this fact, the commission's conclusion confirms the fact that patient N was infected with HIV. From the descriptions of the patient's condition that were entered into the history of his illness, as well as from laboratory research data, one can conclude that the patient suffered from the final stage of the manifestation of the human immunodeficiency virus—AIDS. The commission also stated that four previously studied samples of the patient's blood, which were drawn in Klaypeda, Kaunas, and Moscow, yielded negative

results—they did not confirm physicians' suspicions of the AIDS virus, because the patient was absolutely emaciated and the protein content in his blood had decreased considerably.

When the body becomes emaciated, the level of HIV antibodies also decreases sharply and cannot be determined with the sampling methods used in the test. Moreover, nowhere in the world is there a single test that is 100 percent reliable. Thus, one can hardly conclude from this solitary case that our republic's laboratories do not have the capability of establishing the presence of the AIDS virus. The trouble is that immunologists complain that preparations for determining antibodies to the AIDS virus often arrive at our laboratory near their expiration date—and sometimes after it.

The organizational system that currently exists in the USSR for detecting the AIDS virus does not satisfy us. Each union republic is "attached" to some Moscow central scientific research institute. When our sampling methods reveal antibodies to the AIDS virus, we must send the individual's blood to Moscow and wait for the central scientific research institute's laboratory to confirm it with its own tests. This shipping and waiting for a reply takes a long time, and time is very precious when infection with AIDS is involved. Our immunologists are convinced that we can manufacture effective preparations for determining the AIDS virus ourselves in our republic. Indeed, we have a strong base, with facilities such as the "Ferment" [enzyme] Association and the "Sanitas" Experimental Plant. We must create a group of specialists, possibly even based on a cooperative, and quickly deal with the matter.

But we still have to obtain currency and purchase reliable diagnostic preparations from abroad. Some time ago, the directors of the Lithuanian shipping lines proposed using their currency to buy the republic an expensive foreign computer tomograph. Now, it is more important to detect AIDS and its virus, especially in Klaypeda. We are awaiting help not only from the Gosplan, but also from other organizations dispensing currency.

After studying the republic's first case of AIDS, the commission noted that the clinical immunology laboratory of the republic's Vilnius Clinical Hospital must be equipped with modern technology—with the equipment and reagents needed for determining the presence of the AIDS virus and evaluating patients' immune status after the laboratory receives the right to confirm an HIV infection. Here we should recall our ministry's previously issued order stating that any medical institution in the republic that has even the slightest suspicion of an AIDS infection based on a patient's general condition is obligated to send that patient's blood to Vilnius, to the immunology laboratory of the Clinical Hospital—not to mention in cases where traces of the AIDS virus have been detected.

It is being suggested that our republic's first AIDS patient had been suffering from AIDS for several years and that he could have infected other people. For this reason, in the commission's opinion, an in-depth epidemiological investigation should be undertaken in Klaypeda in very short order. Several of the patient's contacts have already been established. Here everyone would do well to remember the law: an individual who knows that his blood contains the AIDS virus and knowingly infects another individual will be punished with a jail sentence of up to 8 years.

People are terrified of the danger of being infected with AIDS during blood transfusions or drug injections. All donor blood is being checked. And as far as syringes are concerned, there is no danger when they are sterilized conscientiously. The AIDS virus dies at a temperature of 50-56 degrees, and it is destroyed by the most ordinary household cleaning agents. Drug addicts, who do not generally sterilize their syringes, are at a greater risk of infection.

Medical institutions are justified in demanding disposable syringes—their advantages are indisputable. We still do not have any. The other day, the association Ekranas in Panevezhis phoned with an offer to begin producing disposable syringes. We have received the same offer from a cooperative. The raw materials, polyethylene and polystyrene, are inexpensive, and the production equipment, a plastic-casting automatic unit, is not complicated. But how do we solve the problem of sterilizing plastic?

AIDS is not only a medical problem, but also a social and moral problem as well. Statistics have shown that in view of the spread of this disease and the fear of it (the main route of AIDS infection is through sexual contact), several foreign countries have recently experienced a significant reduction in the number of divorces and cases of syphilis. The monogamous family is being reinforced. And in works of art, a cult of morality and a strong family is being revived."

#### **Ministry of Internal Affairs Official Gives AIDS Update**

54001012b Moscow ARGUMENTY I FAKTY in Russian No 2, 1989 p 7

[Excerpt from an untitled article with no byline, under the "Press-Center" rubric; G. Gerasimov is chief of the Directorate of Information of the USSR Ministry of Internal Affairs]

[Excerpt] [Passage omitted] G. Gerasimov also reported on the prevention of AIDS in the USSR. At the end of the year, 17 million persons had been examined. A total of 112 carriers of the AIDS virus were discovered among Soviet citizens, and 334 were discovered among foreigners. The overwhelming majority of foreigners carrying the virus have already left the USSR. Five AIDS patients are registered—three foreigners and two Soviet citizens.

Additional policies concerning the procedure for carrying out the USSR Supreme Soviet's 25 August 1987 ukase "Measures for Preventing Infection by the AIDS Virus," particularly with regard to foreigners, became effective beginning 1 January. Accordingly, any foreign citizens who remain in the USSR longer than 3 months and who do not have documents, mutually acknowledged by special agreements, certifying that they have been tested for AIDS must undergo such testing in our country. A representative of that country's embassy may be present when the blood sample is taken.

UDC 616.98:578.828.6]-092:612.017.1]:614:34]-07

### Survey Evaluates Effectiveness of Public Information on AIDS

54001014 Moscow *ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII* in Russian No 10, Oct 88 pp 20-22

[Article by V. V. Pokrovskiy and A. I. Akimov, Epidemiology Central Scientific Research Institute, USSR Ministry of Health, Moscow]

[Text] At the present time, educating the public in correct sexual behavior is the only effective measure for preventing the propagation of infection with human immunodeficiency virus, which causes AIDS.<sup>1,2</sup> The USSR's mass media has been used extensively for this purpose since February of 1987.

Just between February and October 1987, associates from the USSR Ministry of Health's Epidemiology Central Scientific Research Institute prepared 23 publications in central and Moscow newspapers and journals, four television broadcasts on all-union and Moscow channels, four all-union radio broadcasts, and 53 lectures for physicians and the public about AIDS. In addition to the associates from the Epidemiology Central Scientific Research Institute, many other scholars and health care organizers (including V. M. Zhdanov, G. N. Khlyabich, R. V. Petrov, R. M. Khaitov, M. I. Narkevich, and O. F. Bogatyrev) took part in

disseminating accurate information about AIDS. The purpose of the present study is to evaluate the effectiveness of the measures used to inform the public about AIDS.

**Materials and methods.** Two telephone surveys of the public (using random telephone number sampling) were conducted—one in July 1987 (100 persons surveyed) and the other in October 1987 (sample size, 100). A total of 57 persons declined to respond (21 in July, and 36 in October). The questionnaire included the following questions: 1. What is AIDS? 2. How does a person get AIDS? 3. Who is at risk of getting AIDS? 4. How is AIDS transmitted? 5. Where did you learn about AIDS? and 6. Has the mass media done enough to inform the public about AIDS? Questions 8 and 9 dealt with the respondent's age, education, and occupation. The responses to questions 1-4 were judged to be "correct," "partially correct," "incorrect," or "does not know." The possible responses to question 5 were as follows: "from newspapers and journals," "from television," "from radio," "from acquaintances," or "from physicians." The responses to question 6 could be either "yes" or "no."

**Results and discussion.** One hundred ninety-seven questionnaires were analyzed (three were unusable). The respondents' ages ranged from 18 to 83 years, with the average being 45 years. There were 127 females and 70 males. Of those surveyed, 51.3% had some higher education, 40.6% had a secondary education, and 8.1% did not complete secondary education. Table 1 presents the responses to the first four questions. As is evident from Table 1, 78.6% of those surveyed had correct or partially correct notions about what AIDS is. Similar responses were given by 65.0% of the respondents to the question "How is AIDS acquired?" Also, 62.4% had an idea of which groups are at risk for AIDS. With regard to the question on the transmission routes of the AIDS pathogen, 89.3% responded with correct or partially correct answers. The drop in the frequency of correct (positive) responses to questions 2 and 3 was evidently connected with the fact that a number of publications stated that weakened immunity was the cause of the development of AIDS and that the risk groups were those who have a promiscuous sex life and blood donors. The latter were considered a risk group because they, specifically, are subjected to testing for the AIDS virus antibody. At the same time, the percentage of "positive" responses to the question about the routes of the virus's transmission turned out to be encouragingly high.

### Results of Telephone Survey of the Public (absolute/%)

No	Question	Correct Responses			Partially Correct Responses			Incorrect Responses			Response "Does not know"		
		Jul	Oct	Total	Jul	Oct	Total	Jul	Oct	Total	Jul	Oct	Total
1	What is AIDS?	36/38.8	34/34.3	70/35.5	38/38.8	47/47.8	85/43.2	13/13.3	7/7.1	20/10.2	11/11.2	11/11.1	22/11.2
2	How does a person get AIDS?	54/55.1	34/34.3	88/44.7	17/17.4	23/23.2	40/20.3	11/11.2	25/25.3	36/18.3	16/16.3	17/17.2	33/16.8
3	Who is at risk of getting AIDS?	31/31.6	25/25.3	56/28.4	28/28.6	39/39.4	67/34.0	22/22.5	24/24.2	46/23.4	17/17.3	11/11.1	28/14.2
4	How is AIDS transmitted?	45/45.9	56/56.6	101/51.3	42/42.9	33/33.3	75/38.1	5/5.1	5/5.1	10/5.1	6/6.1	5/5.1	11/5.6

No significant ( $p > 0.1$ ) differences were found in the knowledge level in July and October, despite the fact that the number of publications increased significantly during this period. This was obviously related to the fact that these publications did not, as a rule, contain anything new to readers. The increase in the number of those who declined to be surveyed in October (the number was 58% higher than in July) was connected with the excess of monotonous information. The general motivation for the refusals was "I have had enough."

The overwhelming majority of those surveyed (67.5%) learned of AIDS from newspapers and journals; 20.8% learned of it from television messages, 5.6% from the radio, 5.1% from acquaintances, and 1% from physicians. There was no significant difference between the polling data of July and that of October.

Of those surveyed, 43.2% felt that the mass media is not informing the public about AIDS sufficiently. When the responses of the individuals in this group are compared with those who believe that sufficient information is being provided, it turns out that the former group actually did somewhat worse on the questions (45% and 56%, respectively, responded correctly to the question about transmission routes). In July, 52% of those surveyed felt that enough information is being published about AIDS. In October, the figure was 58%.

Education had a definite effect on the correctness of the responses. Thus, 69.8% of those who responded correctly about the virus's transmission routes had a higher education, 44.2% had a secondary education, and 18.8% had only partially completed secondary education. Among the 58 individuals below the age of 35 years, only 1 answered that he did not know to the question about the routes by which AIDS is spread. The others either responded with correct answers (34) or partially correct answers (23). At the same time, 20 (14.8%) of the older respondents answered incorrectly or that they did not know.

No differences in the knowledge levels of men and women were noted.

The survey results demonstrated that even though the health education measures have had an obvious effect, the effect cannot be considered sufficient.

Several distinctive features of the telephone survey method were discovered. The study samples, in which people with a higher education predominates, were not random, since persons who have a higher education are undoubtedly more likely to have telephones at home and at work than are people with a secondary or an incomplete secondary education. This also apparently explains the predominance of older persons. An analysis of the results revealed defects in the formulation of certain survey questions (questions 2 and 3) that resulted in a certain subjectivity in evaluating the quality of the responses.

Thus, the research showed that the telephone survey method may be used to assess the effectiveness of public health education measures to prevent the spread of epidemic diseases. This method has helped show that the information campaign to prevent the spread of AIDS was partially effective.

### Conclusions

1. The information campaign on AIDS prevention that was conducted from February to October 1987 was partially effective.
2. The telephone questioning method may be used to assess the effectiveness of mass public health education measures.

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### Current State of Leprosy Control Discussed

18400195 Moscow IZVESTIYA in Russian  
24 Jan 89 p 6

[Article by V. Ardayev: "Behind the Wall of Leprosy"]

[Text] Kzyl-Orda Oblast—Chief physician A. Kadyrbayev believes that "the idea that leprosy means the lifetime isolation of patients afflicted with that disease has today become thoroughly outdated."

There are aspects of life about which we are not that knowledgeable, and moreover, prefer not to think about. Leprosy. Just to mention that terrible disease of the ages strikes fear in us. In all times it has been surrounded by mystery since it carried off its human victims to a doomed dwelling place.

"Lepra" in Greek is leprosy. Quite a few mysteries have been associated with the disease until this very day. For example, for a long time it had been considered a "fishermen's disease." The breeding grounds of infection have been, as a rule, in the mouths of large rivers such as the Syr-Darya, the Amudarya, the Ural, the Volga, the Don, and the Kuban. Why that is so is not known. The etiological agent of the disease is the Hansen's bacillus which is almost exclusively cultivated in humans and in no way adapts to animals. The bacillus is not very hardy and quickly perishes when exposed to fresh air and direct sunlight, and is easily removed from the skin by very simple hygienic procedures. One need only thoroughly wash one's hands with soap. There have been no known cases where a medic contracted leprosy. However, we do

know that infection is enhanced by prolonged contacts with patients, poor nutrition, avitaminosis, strenuous physical work, supercooling, and excessive overcrowding.

The control of leprosy is very difficult. The incubation period of the disease can last for decades. According to anti-epidemiological standards, even the infectious breeding ground is not disregarded until 25 years have elapsed since the death of the last patient. Until now we do not yet know precisely the "entry gates" of infection. Does the infection take place via the respiratory tract, the digestive system or through the skin?

Nevertheless, leprosy today is curable, particularly in the so-called tuberculous form which is the most moderate and which is considered benign. After several months of intensive treatment a patient can be discharged from a leper hospital under the observation of physicians. Every year he must undergo examinations and reinforcement treatment. The situation is worse in the case of the malignant variety—the lepromatous form whose treatment takes from five to ten years.

The last case of leprosy was recorded in Kazakhstan two years ago. Nevertheless, leprological expeditions continue to examine previously identified breeding grounds on a regular basis. As early as in the 1960's a leprosy hospital was expanded to accommodate 680 beds, but today there are only 200 and not all of them are occupied.

There is one more riddle to leprosy—the so-called lepro complex. That is, persons who had suffered from this disease very frequently strive to live near each other and

avoid contact with healthy members of society. Approximately 500 persons who have been discharged from a leper hospital live in a nearby settlement and prefer not to move anywhere else.

Life in a leper hospital takes its course. The patients are visited by their relatives. A special visiting room has been set up for them. On the grounds next to the hospital buildings people are tilling beds and growing vegetables for their own needs. Able-bodied persons work as firemen, electricians, and sanitation workers. People get married here and children are born. At one time there was even a pediatric leper hospital, but there is none now since there are no children patients. But there is a pediatric department which has been moved beyond the perimeter of the hospital. There children of leper patients live and study at the boarding house-school and are under constant medical supervision. Subsequently, they will not have to be subjected to any restrictions.

In the middle of the 1960's the leper hospital was moved to a section of Syrdarinskiy Rayon. A single brick structure (the main wing) was surrounded by a dozen frame cane-like small stoves whose maximum service period was not more than 15 years. It was crowded in the four- and five-person tents, and yet people lay here not for weeks, but for months and years.

Every year the Kazakhstan Ministry of Health allocates 50,000 rubles to the leper hospital for construction projects. But even that miserly sum remains unused. In past years workers hired for repair work as a rule came from former patients. That is now forbidden.

Leprosy in our country has been localized and halted but not conclusively defeated. Because there is no medicine that can guarantee that there never will be a recurrence of the disease, and because there are these people who are living both within the leper hospital and outside it.

## FRANCE

### AIDS, HIV-Positive Cases Evolution Estimated

54002482 Paris LE QUOTIDIEN DE PARIS in French  
15 Mar 89 p 3

[Article by Michel Montaigne: "AIDS: Insurers Want To Act as Police"]

[Text] For the first time, estimates are being made of how the disease will evolve in France. While there is currently no risk of insolvency for companies, measures are essential because the very assumptions on which life insurance is based are no longer valid. It is now those in the 24-35 age bracket who will be the most affected, contradicting the principle that "the younger one is, the healthier one is."

The rapid spread of AIDS in France could not fail to worry insurers. Their experts, skilled in handling statistics and calculations of probability, the very basis of their trade, have just drawn up a report crammed with mathematical formulas in an attempt to comprehend the consequences of this disease and measure its effects on the sector.

#### Attitude To Adopt

How will AIDS evolve? According to experts' calculations, there should be 28,000 new cases of AIDS in 1993 alone, compared with some 4,000 in 1988. Based on these same estimates, the number of HIV-positive cases, which was 128,000 at the end of last year, will reportedly reach the spectacular total of 1,636,000 by the end of 1993 (since 1981). According to other figures, France would have over 6 million cases by that same date, but experts deem this number unrealistic. "The figure is much more important than the presumed size of the high-risk groups now counted in France," the authors of the report state, "and the spread among the heterosexual population is too slow for effects of this scope to be measured by 1993."

What would happen if the epidemic could suddenly be stopped? Experts have chosen two dates: 1989 and 1991. HIV-positive cases generated before the disease is halted will continue to add to AIDS cases and deaths.

One may examine the effects if the epidemic is halted in 1989. "The figures give in a sense the minimum size of the epidemic in the years ahead. By the year 2008, there would still be 15 deaths attributable to AIDS, but over 10,000 in 1993."

Naturally, these are only estimates, calculations, projections, but they are of great concern to insurance carriers because they upset all basic assumptions. Also according to the same calculations, in 1993 the mortality linked to AIDS among men 32 years old (the age most affected) will reach 72 percent. Among women 23-24, the mortality by that same date will be 100 percent.

Then there are the uncertainties linked to the very nature of the disease. For example, no one can say what percentage of HIV-positive cases will actually develop the disease. There is also uncertainty on the financial level. "The impact on the finances of insurance companies and the economy as a whole is uncertain. Only the United Kingdom has made a detailed study to date. Finally, there is uncertainty as to the sociological impact."

How effective will preventive measures be? How will morals change? Precisely how will the drug phenomenon evolve?

In the United States, studies done by insurance companies show that the cumulative cost of AIDS losses is \$33.5 billion (about 200 billion francs) between 1986 and the year 2000.

At this rate, will life insurance companies be able to keep up? Are they not risking financial disaster? According to this report, France has no serious risk of overall insolvency of the market over the next 5 years, but the financial performance of life insurance companies will be affected. The average surcost represents a substantial, even if not worrisome, fraction of profits realized in recent years. "This could make the life insurance sector less attractive for big French or foreign investors," the report states.

First of all, the risks of anti-selection must be minimized. It is said there is anti-selection when a carrier has an excessive proportion of HIV-positive cases seeking to buy large amounts of insurance. The United States is now experiencing this problem. The death benefit which HIV-positive cases have sought is five times greater than the average bought by the rest of the population. To prevent this phenomenon, the report suggests having a medical questionnaire filled out when the contract is applied for so as to identify candidates belonging to a high-risk group. Most companies do so today, but they believe it is still premature to inquire directly into the sexual activities of individuals. "It seems necessary," the report's authors write, "to ask candidates a fair amount of questions, particularly for bachelors in the age groups concerned."

And the tests? Can one ask every applicant to have a test? "This would probably not be economically justified and might be poorly received by the public. One compromise would consist of asking candidates wanting to buy insurance over a set amount to take the test."

There remains the possibility of exclusion from the risk of AIDS. It is not impossible that some companies will move toward this formula or include AIDS in their contract, but in exchange for higher premiums. However, the nature of the illness may make this solution "ineffective, in addition to its unpopular and scarcely commercial aspects." The authors of the report recommend not formulating exclusionary clauses, but denying

life insurance to persons with AIDS and HIV-positive cases, given the current state of treatment of the virus. Once such precautions are taken, how are rates to be determined? The companies have two solutions. Either they will opt for "fair rates," consisting of having every age bracket pay for its mortality risk due to AIDS. But the disease upsets all predictions. So far, in fact, contracts are based on the assumption that the younger one is, the healthier one is and the less one costs to insure.

In the future, that principle will be completely outdated. It is the youngest age brackets that will be the most affected. Modifying rates based on probability would amount to raising premiums for the 20-35 group by

nearly 50 percent. The other solution is to raise all rates, distributing over all age groups the surcost linked to AIDS. This would result in an overall premium increase of some 25 percent. This is the solution toward which carriers seem to be gravitating.

Finally, the authors wonder about a number of measures, the computerization of records on HIV-positive cases and AIDS victims, for example. "Can one set up a central data bank, as is done in certain other countries?" they ask. "The information would be of both medical and financial interest." Another consideration is the frequent updating of the status of the disease and short- and medium-term measures.

#### Evolution of Number of HIV-Positive Cases and Number of AIDS Cases in France From 1984 to 1993

Year	HIV+ New Cases	HIV+ Total	AIDS New Cases	AIDS Total	Deaths New Cases	Deaths Total
1984 1	733	2,143	78	228	52	151
1984 2	1,113	3,256	119	347	79	230
1985 1	1,691	4,947	180	527	119	350
1985 2	2,569	7,517	274	801	181	531
1986 1	3,903	11,420	416	1,216	276	807
1986 2	5,930	17,350	632	1,848	419	1,226
1987 1	9,009	26,359	960	2,808	636	1,862
1987 2	13,688	40,047	1,458	4,266	967	2,829
1988 1	20,796	60,843	2,215	6,481	1,469	4,298
1988 2	31,594	92,437	3,365	9,846	2,232	6,530
1989 1	48,001	140,438	5,113	14,959	3,391	9,921
1989 2	72,926	213,364	7,768	22,727	5,152	15,073
1990 1	110,796	324,160	11,802	34,528	7,827	22,901
1990 2	168,330	492,490	17,930	52,458	11,892	34,793
1991 1	255,740	748,230	27,241	79,699	18,067	52,860
1991 2	388,542	1,136,772	41,386	121,085	27,449	80,309
1992 1	590,304	1,727,075	62,877	183,962	41,703	122,012
1992 2	896,837	2,623,912	95,528	279,490	63,359	185,371
1993 1	1,362,547	3,986,459	145,134	424,624	96,260	281,631
1993 2	2,070,091	6,056,551	220,499	645,122	146,245	427,876